

Construction of new Ballygowan Wastewater Treatment Works

A £6.4m investment by NI Water that will support local development and deliver environmental benefits.

Progress Update

December 2021

NI Water's appointed contractor, GEDA Construction and their mechanical and electrical (M&E) partner, Water Solutions Ireland, have continued to make good progress on the construction of the new Ballygowan Wastewater Treatment Works (WwTW) despite ongoing delays with some building services and materials.

In this last update of 2021, we bring you all the latest progress news on the project since the summer and provide a brief lookahead to what will be happening at the site in the new year.



Main
structures
complete

The main concrete structures - including the two new circular Cyclic Activated Sludge System (CASS) tanks - are now fully constructed. Over **2000m³** of concrete and **200 tonnes** of rebar were used in the construction of the new structures on site.

The new storm water storage tanks have been constructed and put into operation to facilitate the installation of the main inlet sewer to the new WwTW. All of the new pipework required on site is at an advanced stage and demolition of some of the old, redundant structures has got underway.

Overall, the work on site is at an advanced stage with the testing and commissioning phases expected to get underway in the first quarter of 2022. Once wastewater flows have been successfully diverted to the new WwTW for improved treatment, the remainder of the existing works will be demolished. Landscaping around the new WwTW site will get underway in the next full planting season to achieve the best establishment of shrubs.

Solar Energy

In a bid to promote sustainability, NI Water is planning to install a new 65 KW renewable solar energy system within the footprint of the old wastewater treatment works site.

The electricity created from the new solar panels (similar to those shown in photo right)

will be used to provide additional power to run the WwTW, reducing energy usage and lowering the carbon footprint of the site.



M&E Progress, Facts & Figures



The Mechanical & Electrical (M&E) work is progressing well with the mechanical install 80% complete and electrical install 60% complete.

- Pumping stations within the site - 80% complete.
- Sludge treatment and storage - 70% complete.
- Final effluent and potable water booster pumping kiosks - 70% complete.
- Final effluent tertiary treatment plant - 70% complete.
- Odour control plants - 60% complete.
- The metal walkways and flooring - 60% complete.

- Aeration treatment 100% complete – over 400 bubble diffusers have been installed in the CASS tanks (left) to distribute oxygen into the wastewater.
- New inlet works - comprising 6mm inlet screens (which act like giant sieves to clean the water) and grit removal - is 80% complete.
- New state-of-the-art Motor Control Centre (MCC) and generator are 80% complete. Over 10,000m of electrical cabling has been installed to date – that's enough to stretch from Ballygowan to Comber!



Contractors help to keep Ballygowan blooming!



NI Water's Ballygowan WwTW construction team were delighted to

provide the local community association with an array of winter bedding plants, compost and planters made from recycled timber to help keep the village blooming this winter. The community group was extremely grateful to receive the plants from GEDA and WSI and welcomed the donation of an NI Water water butt.

The plants have created a lovely floral display in the village which will last throughout the winter.



**Play
Safe**

The Ballygowan WwTW construction site will be closed from midday on the 22nd December 2021 and will reopen on 5th January 2022.

NI Water and GEDA would take this opportunity to remind residents that construction sites are dangerous areas for unauthorised persons, especially children and we would appreciate your cooperation in ensuring that children do not play in or around the site.

The project team wish to thank residents for their continued support as we progress this essential wastewater treatment project and take this opportunity to wish you a very happy, safe and peaceful Christmas. If you have any queries regarding the Ballygowan WwTW project, please contact Waterline on 03457 440088 or email waterline@niwater.com.